

REMARKS

Claims 1-20 are now pending in the present application. Claim 1 has been amended and claims 3-20 have been added. Claims 1 and 11 are independent. The specification has been amended. Reconsideration of this application, as amended, is respectfully requested.

Foreign and Domestic Priority

In the Examiner's Office Action, the Examiner acknowledges Applicants' claim for foreign priority under 35 U.S.C. § 119 and receipt of the certified copy of the priority document in application number 09/869,349. Applicants appreciate the Examiner's acknowledgement of the claim for foreign priority. However, the Examiner also indicates that the parent application was filed on June 28, 2001. However, parent application number 09/869,349 was filed as an International Application Number PCT/JP00/07615 on October 30, 2000 and the requirements of 35 U.S.C. § 371 were satisfied on October 5, 2001. In view of this, clarification is requested.

With regard to the priority under 35 U.S.C. § 120, as the Examiner will note, a claim for priority of the parent application was included in the Preliminary Amendment dated September 29, 2000. In addition, the paragraph added by the Preliminary Amendment has been amended by the present Amendment to include a reference to the status of the parent

application as U.S. Patent No. 6,663,695. In view of this, it is believed that all of the requirements of 35 U.S.C. § 120 have been satisfied; however, confirmation is requested.

Objection to the Drawings

The drawings stand objected to as failing to comply with 37 C.F.R. § 1.84(p)(5) because they include certain reference characters not mentioned in the description and under 37 C.F.R. § 1.84(p)(4) because certain reference characters have been used to designate more than one element of the invention.

With regard to the reference numeral "62" that appears in FIG. 10, Applicants respectfully point out that reference numeral 62 is the high voltage electrode as identified on page 13 paragraphs 2, 4 and 5. In view of this, reference numeral "62" appears in the specification and therefore the drawings are in compliance with 37 C.F.R. § 1.84(p)(5). Reconsideration and withdrawal of this objection are therefore respectfully requested.

With regard to reference numerals "20" and "12," as the Examiner will note, the specification has been amended at page 11, line 13 to change the description "high voltage generator 20" to "high voltage generator "40." In addition, the specification has been amended at page 13, paragraph 2 to change "high voltage electrode 12" (both occurrences) to "high voltage electrode 62." In view of this, reference characters "20" and "12" have been used to identify only a single element. Accordingly, reconsideration and withdrawal of the Examiner's objection under 37 C.F.R. § 1.84(p)(4) are respectfully requested.

Rejection Under 35 U.S.C. § 103

Claims 1 and 2 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Caraway et al., USPN 4,212,654 in view of JP 39-2095. This rejection is respectfully traversed.

The present invention is directed to an air cleaner, wherein a combination of elements are recited in independent claim 1 including “means for blowing steam to said filter from an outside surface of said filter to the inside area of the disk.” Applicants respectfully submit that the references relied on by the Examiner fail to teach or suggest the present invention as recited in independent claim 1.

In particular, the Caraway et al. reference is directed to a centrifugal wet gas scrubbing method and apparatus. Referring to FIG. 1 of this reference, a rotor 18 includes screens 78, 80 and 82 which the Examiner considers to be the filter of the presently claimed invention in conjunction with the upper annular sheet 62. Applicants respectfully submit that the Examiner's understanding of the Caraway et al. reference is incorrect. The screens 78, 80 and 82 of Caraway et al. are not filters, but are used to pick up moisture that is condensed in the rotor 18. There is no air flow through the screens 78, 80 and 82, since the upper annular sheet 62 prevents such air flow. Referring to FIG. 2 of Caraway et al., when the rotor 18 is rotated, flue gas, water vapor and contaminants flow through inlets 20 formed in the annular spacing ring 74. There is no filter in the inlets 20 and, therefore, Caraway et al. fails to disclose a filter, as recited in independent claim 1 of the present invention.

In addition, Caraway et al. fails to disclose the means for blowing steam recited in independent claim 1 of the present invention. Referring again to FIG. 1 of Caraway et al., the steam is supplied upstream of the rotor 18 by water atomizing jets 26. In view of this, the steam flows from an inside of the centrifuge means 16 through the inlets 20 and therefore the steam does not flow "from an outside surface of said filter to the inside area of the disk" as recited in independent claim 1 of the present invention.

In addition to the above, Applicants respectfully submit that the Examiner's modification of Caraway et al. would not have been obvious to one having ordinary skill in the art. The Examiner modifies Caraway et al. in view of the JP 39-2095 reference to include a filter having a wave shape. First, the JP 39-2095 reference does not appear to be a wet gas scrubbing device, as disclosed by Caraway et al., but is a filter that is more analogous to the presently claimed invention. In view of this, Applicants submit that the Caraway et al. and the JP 39-2095 references are non-analogous prior art. In view of this, one having ordinary skill in the art would not be motivated to look to the JP 39-2095 reference for a solution to any problem in the Caraway et al. device. Second, if the Caraway et al. reference were modified as proposed by the Examiner, such a modification would destroy the operability of Caraway et al. The JP 39-2095 reference discloses a filter having a filter element that allows air to flow therethrough, while Caraway et al. includes no filter element, but includes outlets 22 that allow air to flow therethrough. It appears that the Examiner may be modifying the screens 78, 80 and 82 to have a wave shape, such as that disclosed by the JP 39-2095 reference; however, there is absolutely no suggestion to

modify the Caraway et al. reference in this manner. Furthermore, if the Caraway et al. reference were modified in this manner, the compressing of the wetted gas would not be accomplished in the same manner as disclosed at column 4, lines 47-51 of Caraway et al. In view of this, the device of the Caraway reference would not operate in the same manner as disclosed by Caraway et al. and therefore the intended operability of the Caraway et al. device would be destroyed.

With regard to dependent claim 2, Applicants respectfully submit that this claim is allowable due to its dependence upon allowable independent claim 1, as well as due to the additional recitations in this claim.

In view of the above amendments and remarks, Applicants respectfully submit that claims 1 and 2 clearly define the present invention over the references relied on by the Examiner. Accordingly, reconsideration and withdrawal of the Examiner's rejection under 35 U.S.C. § 103 are respectfully requested.

Additional Claims

Additional claims 3-20 have been added for the Examiner's consideration. Applicants respectfully submit that dependent claims 3-10 are allowable due to their dependence upon allowable independent claim 1, as well as due to the additional recitations in these claims.

With regard to additional independent claim 11, this claim corresponds substantially to independent claim 1 of the present invention, except that the recitations presented in

means-plus-function format have been amended so that these recitations are not interpreted in view of 35 U.S.C. § 112, second paragraph. However, claim 11 includes "a steamer, said steamer blowing steam to said filter from an outside of said filter to the inside area of the disk," and therefore defines over the references relied on by the Examiner for generally the same reasons mentioned above with regard to independent claim 1.

With regard to dependent claims 12-20, Applicants respectfully submit that these claims are allowable due to their dependence upon allowable independent claim 11, as well as due to the additional recitations in these claims.

Favorable consideration and allowance of additional claims 3-20 are respectfully requested.

CONCLUSION

Since the remaining references cited by the Examiner have not been utilized to reject the claims, but merely to show the state-of-the-art, no further comments are deemed necessary with respect thereto.

All the stated grounds of rejection have been properly traversed and/or rendered moot. Applicants therefore respectfully request that the Examiner reconsider all presently pending rejections and that they be withdrawn.


It is believed that a full and complete response has been made to the Office Action, and that as such, the Examiner is respectfully requested to send the application to Issue.

In the event there are any matters remaining in this application, the Examiner is invited to contact Paul C. Lewis, Registration No. 43,368 at (703) 205-8000 in the Washington, D.C. area.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. §§ 1.16 or 1.17; particularly, extension of time fees.

Respectfully submitted,

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